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## **Comment to DOE Docket EE-RM-PET-100.**

Fisher & Paykel Appliances is a New Zealand based home appliance manufacturer. We have production facilities in New Zealand, Australia and have recently opened a clothes washer production facility in the USA. Our major markets are those same 3 countries but we also sell extensively in Asia and Europe. Despite being a very small country, New Zealand has over 400 different models of clothes washers registered on the official energy labelling database for sale here. This means we see product manufactured in New Zealand, Australia, Asia, US and Europe. This gives us a wide range of models to evaluate.

Clothes washer water usage has been an issue in a number of our major markets especially Australia. Australia is in the middle of a very severe draught and water supply authorities can see little relief short or long term and are looking at conservation measures. One of the measures adopted has been to introduce a scheme that gives customer cash rebates if they purchase a water efficient clothes washer. Currently in Australia water supply authorities in several States offer \$150 cash rebate to the customer. To qualify clothes washers must achieve a certain efficiency rating on one of 2 schemes. The earlier scheme was voluntary and just used the water consumption during the standard test for energy labelling. This scheme is being replaced by a national, mandatory efficiency labelling scheme that uses the same water consumption as previously, but requires an additional rinse performance test. Such a test has been found necessary. Our testing have shown that many imported washers have had program changes to enable compliance with the water efficiency requirements. These changes have often deleted rinses or at least reduce the quantity of water used during the rinse. Usually this has led to a dramatic worsening of the rinse performance to a totally unsatisfactory level.

Although such changes are new to the market, experience has shown that when customers receive poor performance they automatically increase the wash temperature, add detergent, add water to the wash or add rinses. None of these are desirable but occur when a clothes washer is performing poorly and the customer tries to improve it.

Before a water factor can be added to the washer's mandatory requirements, a rinse performance test is required. AHAM has been working on a rinse test and work is well advanced. To add water consumption limits to clothes washer mandatory requirements without adding a rinse performance test, will undoubtedly lead to some manufacturers unscrupulously and inappropriately reducing water usage and leading to unacceptable rinsing. We have already seen this in a number of clothes washers imported into Australia and New Zealand from both Asia and Europe.

To answer some of the specific issues addressed in the DOE paper.

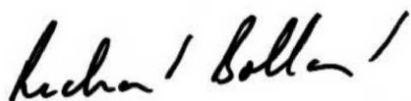
Fisher & Paykel Appliances currently manufactures only 2 models of clothes washers for the USA. Both of these are 'top loading, high efficiency' models. The model with the better water consumption has a water factor of just over 8. As such it passes the 2007 Californian proposal of water factor = 8.5. With some design changes we could achieve a water factor of <8 and hence achieve the 2007 Energystar levels. However we do not see it possible to achieve the proposed Californian 2010 water factor of 6 or less with the current design platform. It would require a huge redesign requiring several years of design time and many millions of capital investment to produce a clothes washer that achieved such water factor levels. It would also effectively make the washer design and much of the production equipment in our recently opened US factory obsolete, thus resulting in a significant stranded investment.

Fisher & Paykel produces high efficiency washers for a niche market. As such the initial ruling for 2007 would have little effect on us. However it must be understood that the main market of conventional top loading washers would probably be decimated by the introduction of the 2007 levels. This would have a huge effect on the availability of low cost conventional washers. Introduction of the 2010 proposal would have an additional effect with the probable removal of even high efficiency top loaders from the market.

### **Summary.**

Fisher & Paykel Appliances supports the introduction of water factor requirements. To optimise the savings the introduction must be in a very orderly and planned manner. Fisher & Paykel Appliances supports water factor being part of the Federal standard and Energystar requirements. This would allow all manufacturers to have visibility of requirements to allow planned product design. To have separate requirements coming from various States is likely to mean a variety of requirements making optimisation very difficult.

It has been proven elsewhere in the world that having water factor limits imposed without adequate rinsing performance tests will lead to abuse, poor performance and in some case the use of extra water. Such rinse testing is under development and this must be allowed to be completed prior to the introduction of water factor requirements.



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